



303047



January 4, 2006

TO: Mr. Russell Hart, RPM  
United States Environmental Protection Agency  
Region V  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590

FROM: Mr. David Curnock, PM, SECOR International Incorporated

RE: **MONTHLY PROGRESS REPORT/MEMORANDUM**  
**Area 9/10 Remedial Design**  
**Southeast Rockford Groundwater Contamination Superfund Site**  
**Rockford, Illinois**

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Copies: Mr. Thomas Turner, Regional Counsel, USEPA Region V  
Mr. Scott Moyer, Hamilton Sundstrand/United Technologies Corporation  
Ms. Kathleen McFadden, United Technologies Corporation  
Mr. Thomas Williams, PM, IEPA  
Mr. Terry Ayers, IEPA

**CURRENT MONTH PROJECT ISSUES/STATUS:** *(activities, meetings, deliverables, etc.)*

Activities conducted in December 2005 consisted of the continuation of Pre-Design Investigation and conceptual design activities. The area of focus at this time with respect to the overall Remedial Design is a portion of the area beneath the Hamilton Sundstrand (HS) Plant #1. There has also been active free product recovery in the South Alley area of the site.

The area beneath the HS facility has been identified as a location of potential source material based on down-gradient groundwater monitoring results. The most likely location of the potential source material is associated with the former area of underground storage tanks (USTs) which were in the central portion of the plant south of the loading dock area. With access to the inside of the building unavailable, alternative means have been explored and horizontal drilling appears to be the most effective method of infrastructure installation.

To facilitate the preparation of the work plan for the AS and SVE horizontal well installation and pilot testing, the installation of a horizontal groundwater monitoring well beneath the facility has been proposed. Knowledge of the concentrations of various constituents of concern in groundwater will assist in the additional pilot test work plan development effort for beneath the plant.

A brief horizontal groundwater monitoring well work plan is being finalized and will be submitted to the USEPA in January 2006. The plan outlines the scope of work to be undertaken and will provide specific well installation, well development, and the baseline sampling to be performed. If off site property access is denied, HS will request assistance from USEPA and/or IEPA in this matter.

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A preliminary conceptual design for horizontal wells and pilot testing letter was submitted to USEPA and IEPA in May 2005. This letter provided an overview of the currently envisioned potential horizontal well and pilot testing treatment corridor. The plan outlined the optimal installation and treatment area without consideration of access constraints (both off-site and on the property).

Pilot testing of the horizontal wells will be a necessary part of the overall remedial design. The horizontal air sparge (AS) and soil vapor extraction (SVE) wells that are planned for pilot testing will likely become part of the final remedial design. This is consistent with a final remedial system design utilizing the Record of Decision (ROD) prescribed technologies for Area 9/10.

Off-site access for horizontal drilling will be required. Access to the property to the south of the plant (2525 11<sup>th</sup> Street) and beneath the Illinois Central Railroad (ICR) spur line north of the plant will be necessary. Initial contact with ICR had been made related to the Outside Storage Container Area (OSA) source removal activities. As this initiative is now on hold ICR access for the horizontal wells is being pursued.

If access conditions indicate that logistic modifications are required, alternate locations and alignments may be developed. The data from the horizontal groundwater monitoring well will be used as input for the development of the AS and SVE horizontal well pilot test infrastructure and test procedures.

The operation and monitoring of hydrocarbon recovery of LNAPL (JP-4) from the recovery systems in the south alley continues. Rockford had experienced an overall rainfall deficit in 2005. This has lowered the water table and produced conditions which have resulted in separate phase hydrocarbons to be observed in the recovery wells in the South Alley since September 2005.

Since product was observed at these wells the recovery well operation has been closely monitored for product recovery. December activities included: 1) the replacement of the FAP pump in the RW-2 well; 2) oversight and coordination with an asphalt paving contractor to replace the recovery well access manholes and protect the wells during repaving activities in the South Alley; 3) placement of R-16 insulation batting in the new well vaults; 4) and monitoring of the recovery system operation. In December approximately 41 gallons of product have been removed by the recovery wells. Summary charts of the water and product levels at the recovery wells (RW-1, RW-2 and RW-3R) are provided as Figures 1 through 3.

**FUTURE PROJECT ISSUES/STATUS:** *(activities, meetings, deliverables, etc.)*

Future project activities anticipated for January 2006 and beyond include:

- Finalize the brief scope of work/work plan for the installation, development, and baseline sampling of a horizontal groundwater monitoring well and submittal to USEPA in January 2006;

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- Monitoring and evaluation of LNAPL (JP-4) presence and recovery at the eastern end of the South Alley will continue;
- Finish compiling the Pre-Design Investigation data into the Data Summary Report. This report will include boring logs, figures, groundwater flow information, and all laboratory analyses undertaken as part of the Pre-Design Investigation. A draft report is being assembled;
- Continue discussions with the new property owner to the south (Mr. Ting located in Minneapolis, Minnesota is the Principal Partner of the trust) and ICR regarding access for horizontal well installations, pilot test access, and longer term AS and SVE system operation; and
- Continue to collect water levels from the groundwater monitoring network on a periodic basis (next event scheduled for March).

HS is/will pursue access as is currently deemed necessary with these off-site entities. If it becomes apparent that progress towards access is not being made, access is being denied, or unreasonable access conditions are being imposed, HS will inform USEPA and seek assistance for reasonable resolution.

#### **SAMPLE/TEST DATA SUBMITTALS:**

Recovery well water and product levels (May to December 2005) are provided as Figures 1 through 3.

#### **RD SCHEDULE UPDATE:** *(attach updated schedule as necessary)*

As the activities associated with the Pre-Design Investigation portion of the Remedial Design (RD) continue, the overall schedule continues to be revised. A scope of work concerning the source mass reduction (by excavation) of near surface impacted soils in the OSA was submitted to the USEPA and IEPA in April 2005. Based on comments and responses, the (technical) work plan was approved with conditions in August. It was identified at that time that there was USEPA concern regarding their authority to administer these activities based on the present administrative order on consent. Proposed text modifications were prepared by HS and submitted to USEPA. USEPA determined in October 2005 that the OSA source mass reduction activity was not within the administrative capacity of the existing AOC and that the proposed AOC text changes could not be accepted. As a result the source mass reduction activity has been placed on hold. HS is presently evaluating the alternatives (separate order for the OSA work or at such time as Remedial Action is undertaken) with regard to the OSA work.

Access to potential source materials beneath the HS facility building will require the use of horizontal drilling. As mentioned previously, off-site access will be required for implementation of this technique. Access to off-site properties presents a potential to affect the schedule for implementation. HS is working on logistical issues associated with this drilling technology and will continue to work with the USEPA on keeping the RD efforts for Area 9/10 moving forward in a timely and reasonable fashion.

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**REALIZED/ANTICIPATED PROBLEM CONDITIONS:**

None.

**PERSONNEL CHANGES:**

None.

Figure 1

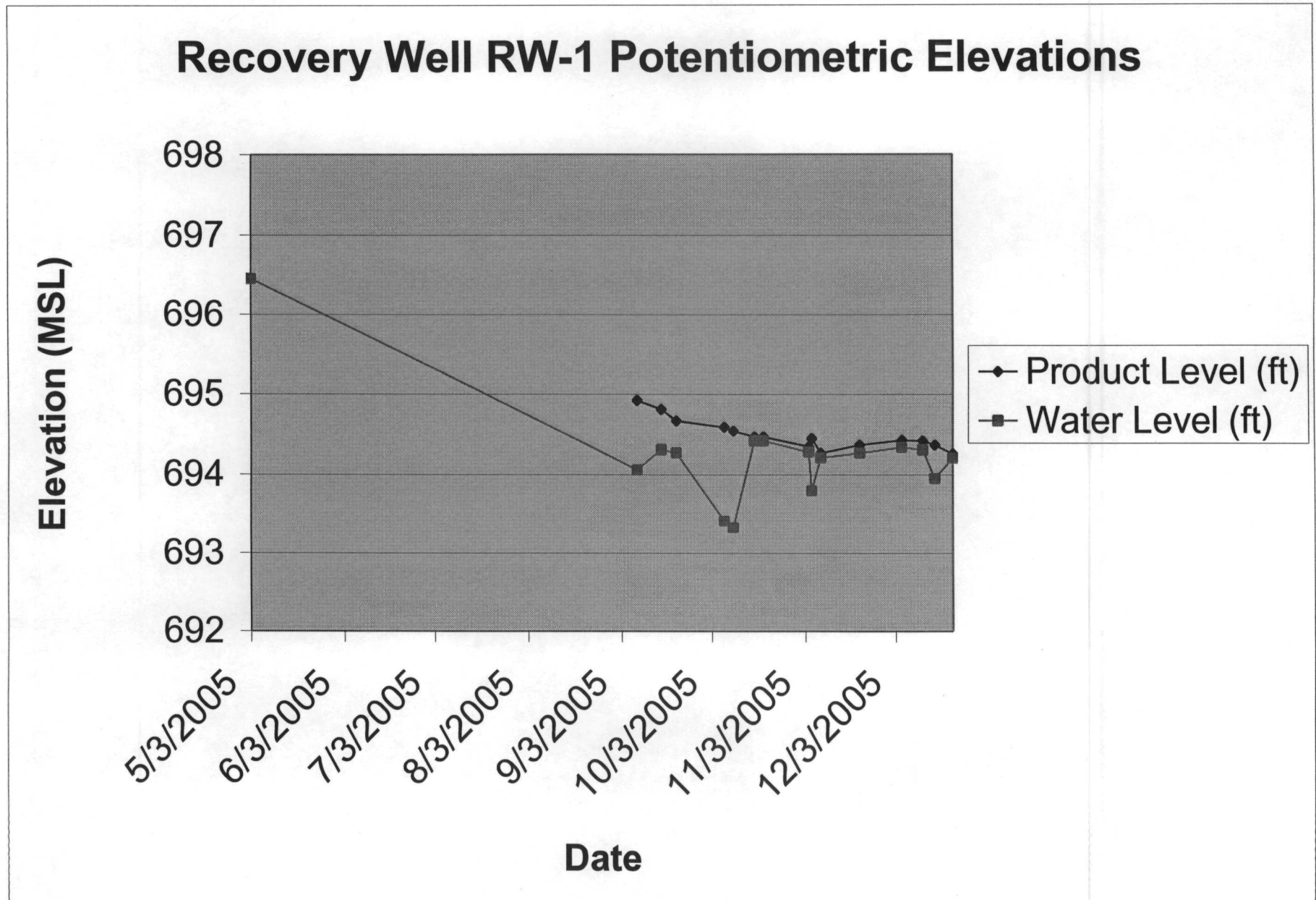


Figure 2

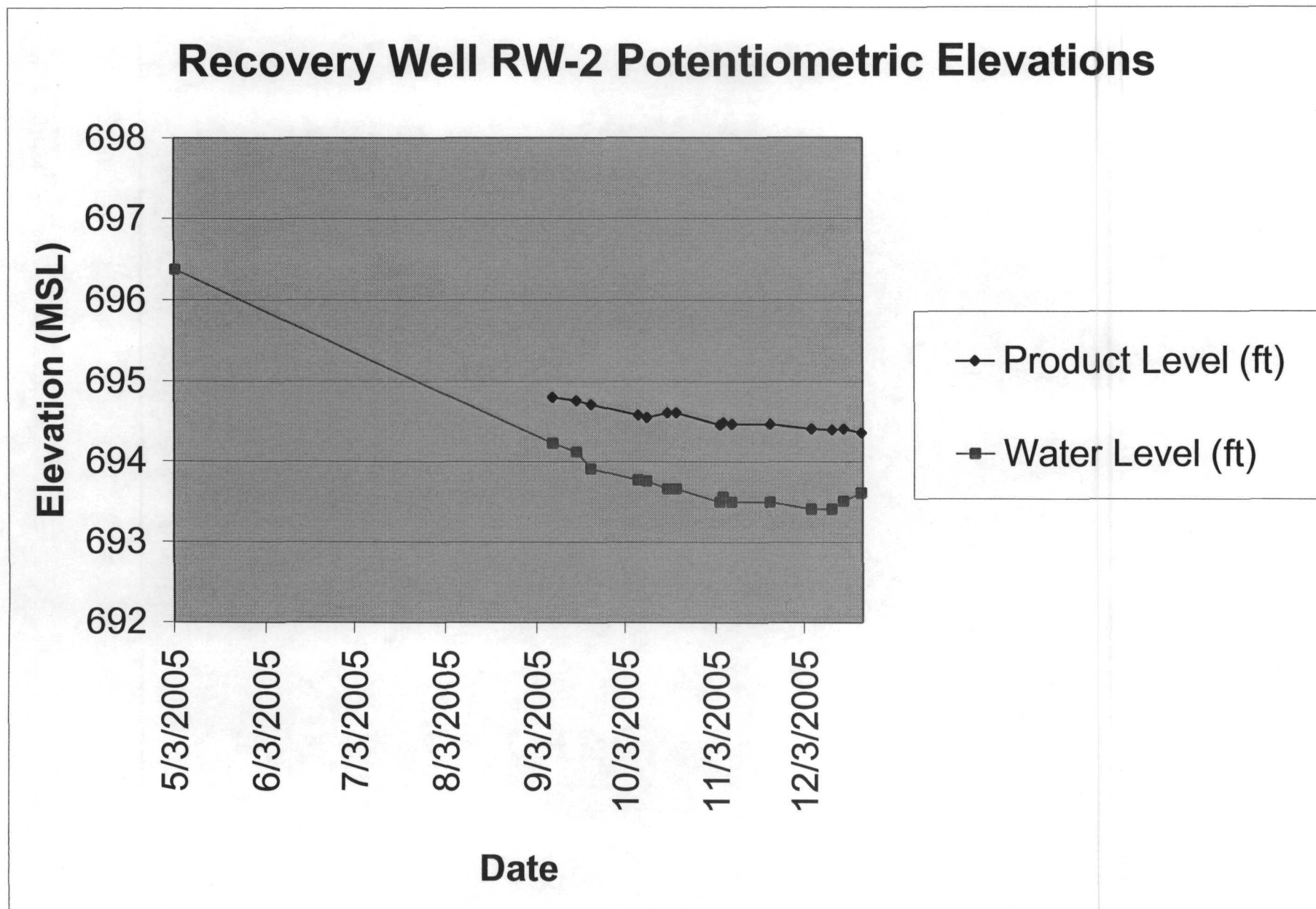


Figure 3

### Recovery Well RW-3R Potentiometric Elevations

